

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | | |
|-----------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------|
| Applicant's or agent's file reference P033751 - P0 | FOR FURTHER ACTION | | see Form PCT/ISA/220 as well as, where applicable, item 5 below. |
| International application No. PCT/JP2004/004183 | International filing date (day/month/year) 25/03/2004 | (Earliest) Priority Date (day/month/year) 25/03/2003 | |
| Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. | | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☒ **Unity of invention is lacking** (see Box III).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

MULTI-MODE RECEIVER WITH TIME-SHARED PROCESSING

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the **drawings** to be published with the abstract is Figure No. 3

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

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International application No.
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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application; as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4, 7, 12-16

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4, 7, 12-16

The first invention, which is constituted by the subject-matter of claim 3, defines a wireless terminal receiving two signals related to a first and a second service, wherein a tuner unit generates a first baseband signal demodulated by a first baseband unit and a second baseband signal demodulated by a second baseband unit one at a time according to a switching signal, and wherein the second service is a bidirectional communication service and the wireless terminal further comprises a transmitting unit. Note that independent claims 1 and 15 and dependent claims 2, 7, 12-14 and 16 do not constitute an invention (because their subject-matter lacks an inventive step with regard to the disclosure of Document US 6483456 as set out below), but have formally been associated with the first invention, since they have been searched together with the first invention.

2. claims: 5,6,17

Claim 5 is directed to a wireless terminal receiving two signals related to a first and a second service, wherein a tuner unit generates a first baseband signal demodulated by a first baseband unit and a second baseband signal demodulated by a second baseband unit one at a time according to a switching signal, and wherein the tuner unit comprises two tuners operable to generate the first and second baseband signals, respectively, in accordance with said switching signal.

3. claim: 8

Claim 8 is directed to a wireless terminal receiving two signals related to a first and a second service, wherein a tuner unit generates a first baseband signal demodulated by a first baseband unit and a second baseband signal demodulated by a second baseband unit one at a time according to a switching signal, and wherein the wireless terminal further comprises a first and a second antenna adapted to the first and second signals and wherein the tuner unit comprises a switching unit to select one of the antennae.

4. claim: 9

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Claim 9 is directed to a wireless terminal receiving two signals related to a first and a second service, wherein a tuner unit generates a first baseband signal demodulated by a first baseband unit and a second baseband signal demodulated by a second baseband unit one at a time according to a switching signal, and wherein the tuner unit includes a variable bandpass filter.

5. claim: 10

Claim 10 is directed to a wireless terminal receiving two signals related to a first and a second service, wherein a tuner unit generates a first baseband signal demodulated by a first baseband unit and a second baseband signal demodulated by a second baseband unit one at a time according to a switching signal, and wherein the first service is provided by a cellular system providing a plurality of base stations and the second service is a positioning service and wherein a base station is selected in dependence on a position determined from the signal related to the second service.

6. claim: 11

Claim 11 is directed to a wireless terminal receiving two signals related to a first and a second service, wherein a tuner unit generates a first baseband signal demodulated by a first baseband unit and a second baseband signal demodulated by a second baseband unit one at a time according to a switching signal, and wherein the terminal determines its moving speed from the second signal and selects an operating mode for processing of the first signal in dependence on the moving speed.

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International Application No

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04H1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04H G01S H03J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| X A | US 6 483 456 B2 (HUISKEN JOSEPHUS ANTONIUS) 19 November 2002 (2002-11-19) abstract column 1, lines 6-10 column 1, lines 29,30 column 1, line 29 - line 30 column 3, line 3 - line 53 figures 1,4 | 1,2,7, 12-16 3,4 |
| A | ----- EP 1 039 311 A (FRANCE TELECOM) 27 September 2000 (2000-09-27) abstract paragraphs [0001], [0002], [0016], [0017], [0039] - [0046] figures 2,3 ----- -/-- | 1-4,7, 12-16 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

7 April 2005

Date of mailing of the international search report

17. 11. 2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|
| A | WO 01/08441 A (KONINKLIJKE PHILIPS ELECTRONICS N.V) 1 February 2001 (2001-02-01) abstract; figure 2 ----- | 3,4 |
| A | US 2002/010763 A1 (SALO JUHA ET AL) 24 January 2002 (2002-01-24) abstract pages 2,3 figure 2 ----- | 3,4 |

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Information on patent family members

International Application No

PCT/JP2004/004183

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
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| | | | JP 2003534687 T | 18-11-2003 |
| | | | US 2002003494 A1 | 10-01-2002 |
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| EP 1039311 | A | 27-09-2000 | FR 2791494 A1 | 29-09-2000 |
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| WO 0108441 | A | 01-02-2001 | CN 1318269 A | 17-10-2001 |
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| | | | AU 8388501 A | 08-01-2002 |
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